REMARKS

Administrative Overview

In the Office Action mailed on November 13, 2007, claims 1, 2, 5, 6, 8–18, 20, and 22–26 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,329,984 to Boss et al. (hereinafter "Boss"), and claims 3, 4, 7, 19, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Boss.

The Applicants hereby amend claims 1, 4, 7–10, 13, 15, 16, 19, and 24–26. Support for the claim amendments can be found throughout the specification, the drawings, and the claims as originally filed. No new matter is introduced by these amendments. After entry of the claim amendments, claims 1–26 will be pending in this application. Accordingly, the Applicants respectfully request reconsideration of claims 1–26 in light of the amendments made above and the arguments presented below, and the withdrawal of all rejections.

The Examiner's rejections are addressed in the order in which they appear in the Office Action.

Claims 1, 2, 5, 6, 8–18, 20, and 22–26 are Patentable over Boss

Claims 1, 2, 5, 6, 8–18, 20, and 22–26 are rejected under 35 U.S.C. § 102(b) as being anticipated by Boss. The Applicants respectfully traverse this rejection as applied to the claims.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. See, MPEP § 2131. The Applicants respectfully submit that Boss fails to meet this exacting standard as applied to Applicants' independent claims 1, 14, and 26.

In general terms, Applicants' invention relates to methods and systems for synchronizing, in a bandwidth-adaptive manner, a consumer node representation of a dynamic data set with a

source node representation of the dynamic data set. Specification at para. **[0001]**. To enable the bandwidth-adaptive synchronization of the dynamic data sets, the methods and systems employ **a communications service** that receives communications from the source node and transmits communications to the consumer node. More specifically, both data packets representing the current state of the source node dynamic data set and metadata information are transmitted from the source node to the communications service, and from the communications service to the consumer node. Specification at para. **[0036]**, **[0038]**, **[0040]**, and **[0042]**. The metadata information identifies each data packet representing the current state of the source node dynamic data set. Specification at para. **[0039]**. Because of this, each data packet representing the current state of the source node dynamic data set need not be sent on every transmission from the communications service to the consumer node. Rather, only the metadata information and the data packets representing the current state of the source node dynamic data set that were not previously transmitted to the consumer node need to be sent. Specification at para. **[0042]**. The consumer node is then able synchronize its data set with the source node's data set by employing the data packets identified in the metadata information.

Accordingly, one advantageous feature of Applicants' invention is the bandwidth-adaptive synchronization of dynamic data sets. With reference to FIG. 3 of Applicants' application, a consumer node 150'' that communicates with a communications service 300 over a low-bandwidth connection may receive data packets and metadata information from the communications service 300 less frequently than (and, thus, fewer data packets in total than) a consumer node 150 that communicates with the communications service 300 over a high-bandwidth connection. More specifically, as illustrated in FIG. 3, consumer node 150 receives metadata packets 310, 320, and 330 and data packets 0, 1, 2, 3, 4, and 5, while consumer node

150'' only receives metadata packets 310 and 330 and data packets 0, 1, 2, 4, and 5. Data packet 3 is not transmitted by the communications service 300 to consumer node 150''. See Specification at para. **[0042]** and FIG. 3. Nevertheless, because the consumer node 150'' receives from the communications service 300 the metadata information that identifies each data packet representing the current state of the source node 100 dynamic data set (*i.e.,* metadata packet 330 identifying data packets 0, 4, and 5), the consumer node 150'' is still able to correctly synchronize its data set with that of the source node 100. Specification at para. **[0042]**. Accordingly, use of the metadata information enables the communications service 300 to communication with the consumer nodes 150, 150'' in a bandwidth-adaptive manner.

As also illustrated in FIG. 3 of Applicants' application, following the transmission of metadata packet 330 to consumer node 150'', communications service 300 transmits data packets 4 and 5 to consumer node 150''. In contrast, following the transmission of metadata packet 330 to consumer node 150, communications service 300 transmits only data packet 5 to consumer node 150, as data packet 4 was previously transmitted to the consumer node 150 (i.e., following the transmission of metadata packet 320). Thus, in order to communicate with the consumer nodes 150, 150'' in a bandwidth adaptive manner, the communications service 300 selects for transmission to a consumer node 150, 150'' only those data packets responsive to the metadata information that were not previously transmitted to the consumer node. See Specification at para. **[0042]** and FIG. 3.

Each of Applicants' independent claims 1, 14, and 26 includes at least one limitation directed towards these uses of metadata information **by the communications service** so that it may communicate with the consumer nodes in a bandwidth-adaptive manner. For example, independent claim 1 recites, in part:

"(c) receiving, **by a communications service from the source node**, metadata information identifying at least one data packet . . .

(d) receiving, **by the communications service from the source node**, at least one of the identified data packets;

(e) selecting, **by the communications service**, at least one of the received data packets responsive to the received metadata information;

(f) transmitting, **by the communications service to a consumer node**, the metadata information; and

(g) transmitting, **by the communications service to the consumer node**, the selected at least one data packet." (Emphasis added).

Independent claim 14 recites, in part:

"a source node configured to . . . transmit the at least one metadata packet and the at least one identified data packet; and

a communications service in communication with the source node, the communications service configured to select one of the at least one metadata packet and the at least one data packet **for transmission to a first consumer node.**" (Emphasis added).

Independent claim 26 recites, in part:

"(b) receiving, **by a communications service from the source node**, first metadata information identifying a first at least one data packet . . .

(d) receiving, **by the communications service from the source node**, second metadata information identifying a second at least one data packet . . .

(e) generating, **by the communications service**, third metadata information representing the difference between the first at least one identified data packet and the second at least one identified data packet, the third metadata information identifying a third at least one data packet;

(f) transmitting, **by the communications service to a consumer node**, the third metadata information; and

(g) transmitting, **by the communications service to the consumer node**, the third at least one data packet." (Emphasis added).

Boss describes "methods and apparatus for task based application sharing in a graphic user interface such as Windows. A user, referred to as the host user, designates an application to be shared, referred to as a shared application. Another user at a remote location, referred to as the client user, shares control of the shared application. The shared application runs on and executes only on the host system." Boss at col. 2, ln. 32–38. As described in Boss, "calls by the display driver on the host system are intercepted and the identification of the currently running task is examined. If the currently running task is part of a shared application, the task, which is a display driver call, is transmitted to the client system." Accordingly, in distinct contrast to Applicants' claimed invention, Boss merely describes direct communication between two systems – a host system and a client system. Nowhere does Boss describe the use of an additional **communications service** that is in communication with both the host system and the client system.

Because Boss does not describe **a communications service,** Boss necessarily can not, and in fact does not, teach or suggest receiving at the communications service (from a source node) both data packets and metadata information, and then transmitting from the communications service (to a consumer node) the metadata information and selected ones of the

received data packets, as recited in each of Applicants' independent claims 1 and 14. Moreover, because Boss does not describe **a communications service,** Boss necessarily can not, and in fact does not, teach or suggest receiving at the communications service (from a source node) first metadata information and second metadata information, generating at the communications service third metadata information, and transmitting from the communications service (to a consumer node) the third metadata information and a data packet identified thereby, as recited in Applicants' independent claim 26.

Accordingly, the Applicants respectfully submit that Boss fails to teach or suggest all of the elements present in any one of the Applicants' independent claims 1, 14, or 26. Therefore, the Applicants respectfully submit that independent claims 1, 14, and 26, and claims 2, 5, 6, 8–13 15–18, 20, and 22–25, which depend either directly or indirectly from either independent claim 1 or 14, are patentable over Boss. Accordingly, the Applicants respectfully request that this ground of rejection be reconsidered and withdrawn.

Claims 3, 4, 7, 19, and 21 are also Patentable over Boss

Claims 3, 4, 7, 19, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boss. The Applicants respectfully traverse this rejection as applied to the claims.

To demonstrate a prima facie case of obviousness, all of the limitations of the claim at issue must be taught or suggested by the prior art reference(s) relied upon in support of the rejection. See, MPEP § 706.02(j) and § 2143. For at least the reasons set forth above, the Applicants respectfully submit that Boss does not teach or suggest all of the limitations of either Applicants' independent claim 1 or 14, and therefore does not legally establish a prima facie case of obviousness of claims 3, 4, 7, 19, and 21, which depend, either directly or indirectly, from either independent claim 1 or 14. Therefore, the Applicants respectfully submit that claims 3, 4,

7, 19, and 21 are also patentable over Boss, and respectfully request that this ground of rejection be reconsidered and withdrawn.

CONCLUSION

In light of the foregoing, the Applicants respectfully submit that all of the pending claims are in condition for allowance. Accordingly, the Applicants respectfully request reconsideration, withdrawal of all grounds of rejection, and the allowance of all the pending claims in due course.

If the Examiner believes that a telephone conversation with the Applicants' attorney would be helpful in expediting the allowance of this application, the Examiner is invited to call the undersigned at the telephone number identified below.

Respectfully submitted,

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